Presentation Information

Track Preference: Earned Value Management

Presentation Title: Employing Earned Value Management in Government Research & Design—Lessons Learned from the Trenches

Synopsis: This presentation shares the project management methodology, tools, and examples developed for a technology development team made up of NASA, industry, and academia. The method presented is an adaptation of Earned Value Management which retains the intent but accounts for the reality of technology development and the government financial system.

Abstract: To effectively manage a project, the project manager must have a plan, understand the current conditions, and be able to take action to correct the course when challenges arise. Research and design projects face technical, schedule, and budget challenges that make it difficult to utilize project management tools developed for projects based on previously demonstrated technologies. Projects developing new technologies by their inherent nature are trying something new and thus have little to no data to support estimates for schedule and cost, let alone the technical outcome. Projects with a vision for the outcome but little confidence in the exact tasks to accomplish in order to achieve the vision incur cost and schedule penalties when conceptual solutions require unexpected iterations or even a reinvention of the plan. This presentation will share the project management methodology and tools developed through trial and error for a NASA research and design project combining industry, academia, and NASA in-house work in which Earned Value Management principles were employed but adapted for the reality of the government financial system and the reality of challenging technology development. The priorities of the presented methodology are flexibility, accountability, and simplicity to give the manager tools to help deliver to the customer while not using up valuable time and resources on extensive planning and analysis. This presentation will share the methodology, tools, and work through failed and successful examples from the three years of process evolution.

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Biography: Mr. Simon has worked in technology development at NASA for nine years working as a component, system, and multi-system engineer as well as a project manager. Mr. Simon is currently in the Systems Engineering Leadership Development Program (SELDP) working as the Assistant Chief Engineer for the Fast & Affordable Science & Technology Satellite (FASTSAT) project. Mr. Simon has also worked as a systems engineer for the Space Shuttle Program.